

AB

Please add the following new claims:

6. (New) A method for generating an image signal when estimating a motion of image sequences, motion vectors indicating, for each picture block of a current image, a position of the picture block used for a prediction with respect to a chronologically preceding reference image, the motion vectors being formed for each picture block, the method comprising the steps of:

 in a first search step, determining a first motion vector with a pel accuracy;

 starting out from the first motion vector, in a second search step, determining a second motion vector with a sub-pel accuracy by an aliasing-reducing interpolation filtering, using a digital filter, a resolution being selected to be higher than that corresponding to a resolution of a pixel raster in the first search step, more than four neighboring pixels being utilized for an interpolation of each pixel, to interpolate pixels between a scanning raster for the first search step; and

 in a third search step, starting from the second motion vector, determining a third motion vector by a further interpolation filtering using the digital filter, a resolution being increased once more in comparison with the second search step, an interpolation being carried out on the basis of a pixel raster, with a resolution in the second search step.

7. (New) The method according to claim 6, wherein the image signal is a prediction signal for video images generated using a motion-compensating prediction.

8. (New) The method according to claim 6, wherein the more than four neighboring pixels are more neighboring pixels than are utilized for a bilinear interpolation.

9. (New) The method according to claim 6, wherein, for the interpolation filtering

in the second search step, an FIR filter is used having filter coefficients CO1 = 161/256, CO2 = -43/256, CO3 = 23/256, CO4 = -8/256.

10. (New) The method according to claim 6, wherein for the further interpolation filtering in the third search step, an FIR filter is used having FIR filter coefficients CO1' = 1/2, CO2' = 0, CO3' = 0, CO4' = 0.

11. (New) The method according to claim 6, further comprising the steps of:
in order to predict video objects, separately conditioning, for each video object, filter coefficients of the digital filter; and
inserting the filter coefficients into a transmission bit stream at a beginning of transmission of an object in question.

12. (New) The method according to claim 6, further comprising the step of:
adapting, for an encoding of a motion vector for a transmission, a range of values of motion vector differences to be coded to an increased resolution.

IN THE ABSTRACT:

On page 10, line 1, change "Abstract" to
-- Abstract Of The Disclosure --

On page 10, lines 9-11, change "interpolation methods.
One" to - -interpolation methods. One- -.

REMARKS

This Preliminary Amendment cancels, without prejudice, original claims 1-5 and substitute claim 1 in the underlying PCT Application No. PCT/DE98/01938, and adds new claims 6-12. The new claims conform the claims to U.S. Patent and Trademark Office rules and do not add new matter to the application.